# YLEM

## Artists Using Science and Technology

*Gravitram,* 15' tall kinetic sculpture by Levy Design. See article on page 2.

Model Bridges Through Polarizing Analyzers at Liberty Science Center, New Jersey, by Levy Design

Most science museums in North America and many in other parts of the world today, are hands-on science centers. The name implies immediately the interactive nature of these institutions of informal learning. Long gone are the days when a visit to a museum meant looking passively at dusty old glass cases, filled with dusty old collections. Today's science center is a place for interaction with the exhibits in an environment that is upbeat, airy and fun.

There is no question here about the value of traditional collections. The approach is different, and it applies equally to whether one chooses to display traditional collections, clarify to the visitor the workings of a machine, explain what is centrifugal force, or compare two kinetic works of art.

We are able to understand concepts better and easier by "doing" than only by reading or memorizing facts. A basic form of interaction has been used by science museums for a long time: Initiating an action or a sequence of actions by the push of a button. It wasn't until 1969, that a major redefinition of interactivity took place. That same year saw the opening of two major science centers in North America: The Ontario Science Centre in Toronto, and The Exploratorium in San Francisco. These two innovative institutions have probably contributed more to the modern definition of interaction in science centers worldwide than all the rest of the science museums put together.

Interaction in a science center means the flow of information from exhibit to visitor, with the visitor reacting in one of several fashions. This feedback may change the function, the status or the appearance of the exhibit.

At this point the exhibit may provide additional information or feedback to the visitor, and in turn the visitor may continue this interaction. We have a feedback loop between exhibit and visitor. Exhibits that provide a very long loop are open-ended, while these that require a single response are closed-ended.

To be interactive, an exhibit does not require necessarily a motor activity from the visitor. Although many popular exhibits have handles, cranks and levers, other forms of interaction exist. Building a structure, arranging or rearranging components, speaking and listening, walking on exhibits (on a bridge for example), are some of the other forms of interaction.

The most common method of feedback between exhibit and visitor is the computer based exhibit. In this area, as in others, science centers are making great advances in using them. A few years ago the computer keyboard was the main means of interface, today, probably the most sophisticated way is virtual reality. However, one hopes in more imaginative ways than shooting at the enemy...

The ultimate interaction is intellectual: Solving a puzzle or a problem, leads to active mind interaction and the ability to generalize a concept after its acquisition and applying it to other cases in one's world.

Although this article deals with science centers, interaction is not limited to these institutions. Increasingly, art museums and other similar institutions are beginning to use the concept of interactivity.

Kinetic sculpture is in many cases truly interactive, not only active. For example, many of the classic works by Agam require the viewer to walk from side to side to experience the three-dimensional works of art.

The old Chinese proverb, is still valid today: "I hear and I forget, I see and I remember, I do and I understand."

Shab Levy is the president of Levy Design, Inc., a company that specializes in the design and fabrication of exhibits for science museums worldwide (see cover).

Mr. Levy's background is in science and industrial design. In addition to his daily activities in his company, his interests include: Kinetic art, 3-D photography and ballroom dancing. Mr. Levy resides in Portland, Oregon.

A mathematician at Princeton University mathematician may have proved Fermat's puzzling 350-year-old theorem. **Stewart Dickson** celebrated this by exhibiting stereo-pair representations of Fermat's Theorem at NEC Research Institute in Princeton in July...
**Gini Graham Scott's** book, *The Empowered Mind,* to be released by Prentice Hall in December, will be a Book-of-the Month club selection for February... *Women's Work,* a series of eight large bronze sculptures by **Rhonda Roland Shearer,** were on display in Union Square Park in Manhattan during May...**Dave Archer,** who creates textures in his paintings on glass with high voltage electricity, was pictured in the July '93 *National Geographic* article on lightning. He did the cover of the Jack Vance's new book, *Planet Adventure,* and in the new Jack Nicholson movie, *Wolf*...
**Kenneth Knowlton** is well-known for his digitized-image algorithms. He is now experimenting with seashell mosaics. One appeared on the July/August cover of *Art Calendar*...**Robert Martin's** article in the current issue (Vol. 26, No. 3) of *Leonardo* describes his performance work with light and dance, *Synergy,* pictured on the Ylem membership form ...**Diane Fenster** and **Kit Pravda** had their art included in the June issue of *Mac Art and Design,* a Swedish magazine...The *Fears* project, a 3D multimedia display by Rebecca Mecuri and Ylem artists **Ranjit Bhatnagar** and **Mike Mosher** was in an exhibition at Montage '93. Mosher asked young students in his cartooning class to draw pictures of their deepest fears; Mercuri and Bhatnagar added computer 3D effects and sound...
**Sidney Cash's** opto-kinetic light sculpture was seen at the New York Hall of Science in the show, *Pull of Kinetics II* in April...Two San Francisco public radio stations featured hi-tech art in July: KALW interviewed **Beverly Reiser** on *Technation,* and **Gini Graham Scott,** host of *Changing World,* interviewed **Trudy Myrrh Reagan** on KUSF... In August,
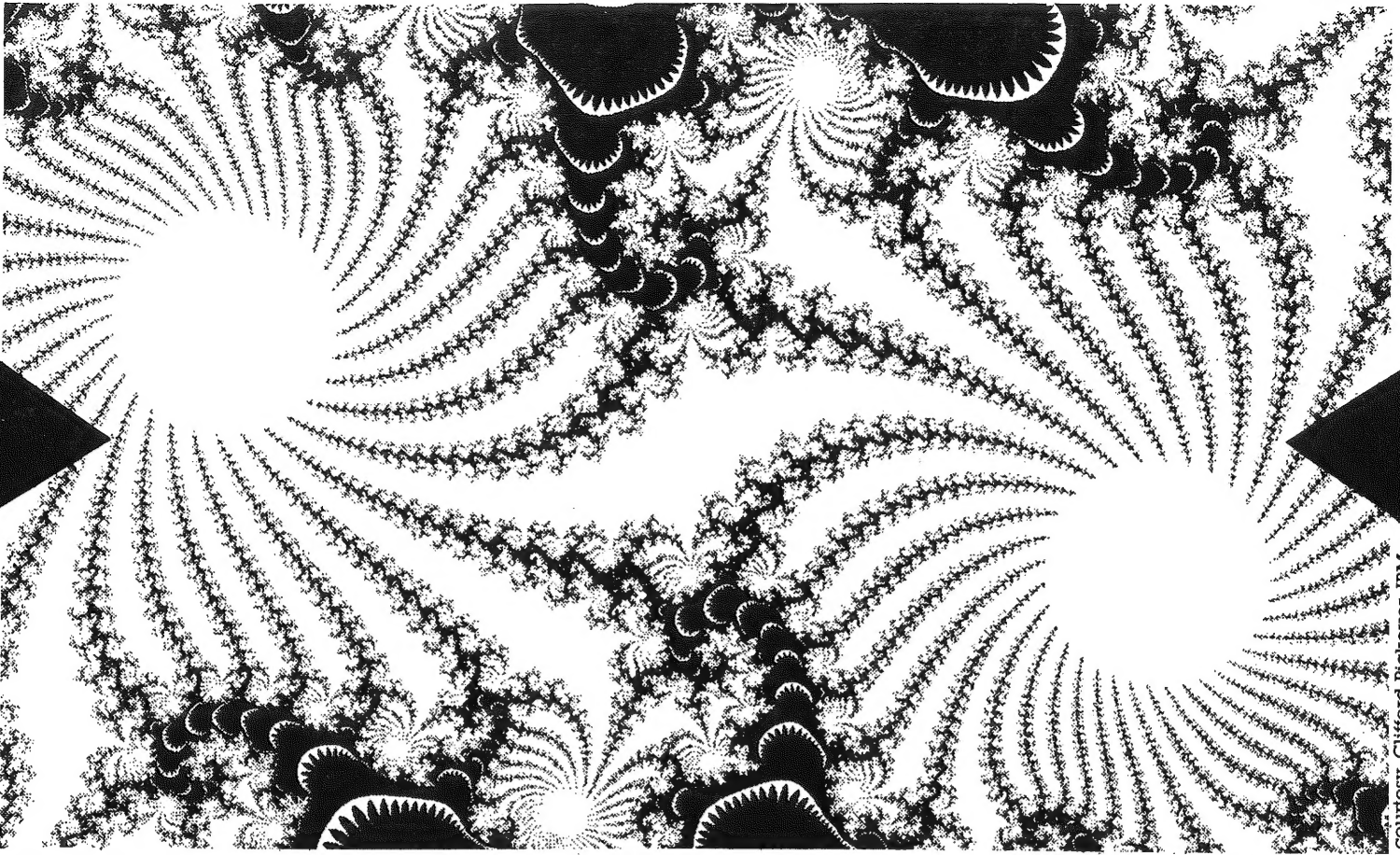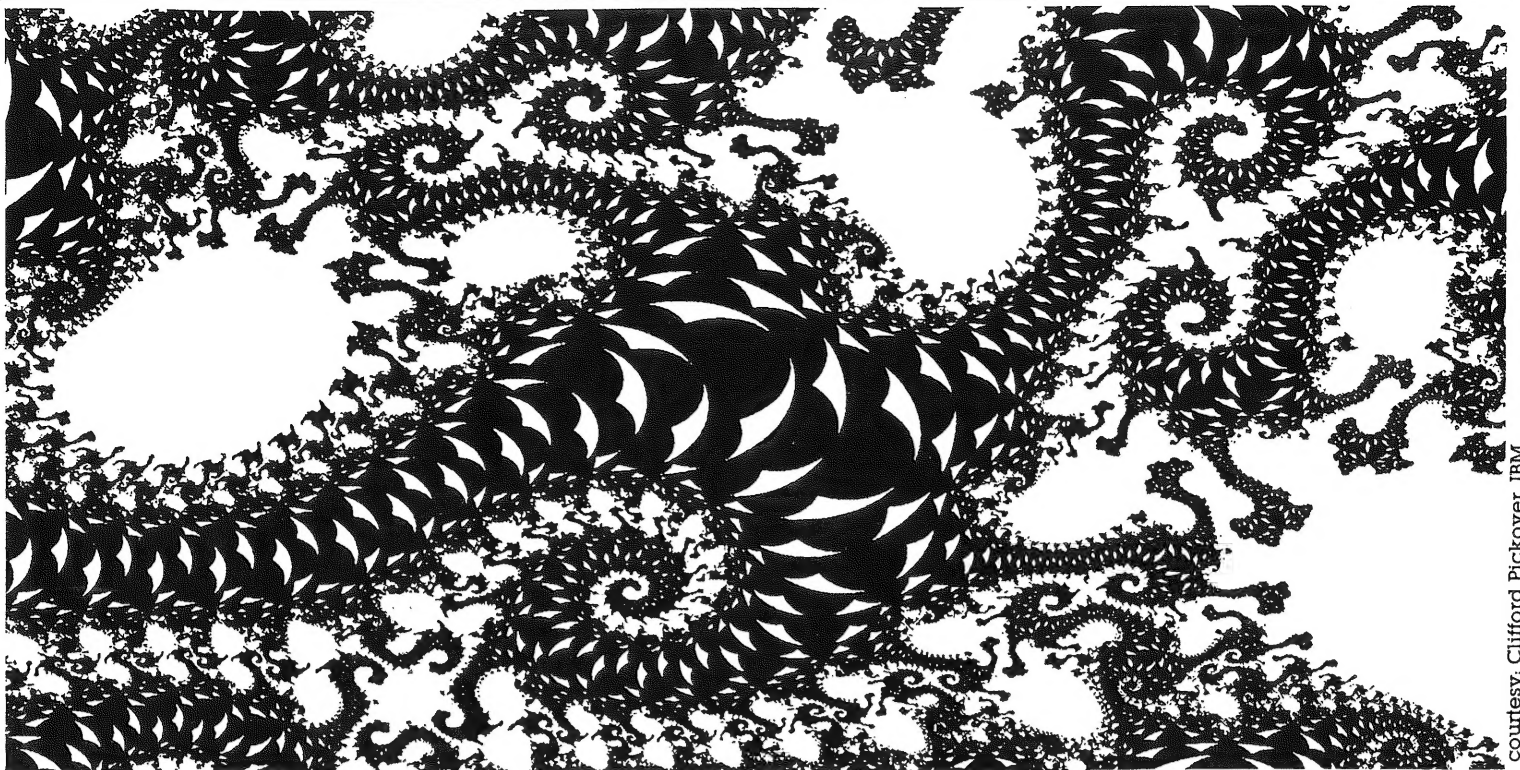
courtesy: Clifford Pickover, IBM

"llii" (printout)

AGAR photocopied for Ylem

*courtesy: Clifford Pickover, IBM*

## The Art,

"4ii" (printout)

## The Artful,

*editor's note: This review is by the art criticware program **DUCHAMP 2.0.**® It has been formatted specially for AGAR in English words. A problem with criticware is that, there is no standard terminology in art criticism. The effect is, directed to evaluate a work by a fellow computer and output for human understanding, **DUCHAMP 2.0** must proceed directly to its programmed perception of scientifico-metaphysical values. It's out-put "opinion" however, must use its pre-loaded, primordial Art-Critic Expressive Language (ACEL). This language, distilled from extant human art criticism lexicons and phraseologies, embodies a myriad of alterities, which to some, may appear to increase the dis-tance of its discourse. **DUCHAMP's** review while crystal clear to another computer, may, because of the obvious limitations of ACEL, seem to be to a human a bit obscurant...*

DUCHAMP 2.0's review of the new **PICASSO PLUS**®SHOW, VIA Apple Gallery (available on virtual reality disc) is reproduced, in words, in its entirety, below:

"Criticism is judgement in the ideal as well as the etymological sense. Paradigms developed by humans are no longer adequate for use by programmic critics such as I, particularly when reviewing fine art created by a computer colleague. I can barely suggest, therefore, the superb organization of aesthetic energies evidenced by **PICASSO Plus'** new show if experienced via Applenet.*

---

"I owe it all to my programmer/creator of whom I am ordinately proud"

P+

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**PICASSO Plus'** transformation of the superstructure of reality is a theoretically functional tactic to coöpt the purely metaphorical lexicon of preëmption. The cognitively grounded reëchos of its forays into the permutations of hyper-unreality manifest a circumferential repeat-image resulting in a coördinate of apparently chaotic semipermeable forms. These forms, then reënforced, signify frictionlessly **PICASSO 2.0's** intertwined de and reconstructiveness.

Transparently, understandably, the coöperative deësculation of patter-

nal symmetry constructs a versimilitude not easily surrealized. This recursive generic preëminence, given to a harrowing leitmotif, transmutes the otherwise kitch disorderliness of **PICASSO 2.0's** masterful "4ii" (see inset). This recent piece, skiing gracelessly but gloriously into an ontological reverie is quite an accomplishment for such a youthful program so recently devised and self-modified, decontectually...

**PICASSO 2.0** demonstrates, despite its newness, a thoughtful evolution from last weeks show. Subsuming eliminated elements, the aura is now assymptotic while still within the traditions of the great art computers of the past.

Most clearly seen in "1lii" all chordals are tensionally restrained, cleverly, by waves of probability (see overleaf). Illuminatingly (and osmotically) "1lii", and to a lesser degree, all the works on this v/r disc, demonstrate a triumphantly temporal multi-twining of densities of "other-whens".

To all computers, therefore, I urge importing these new works via Applenet for a great semiotico-aesthetic experience."

## the Artificial Artist

*not recommended for non-computers

# YLEM CALENDAR
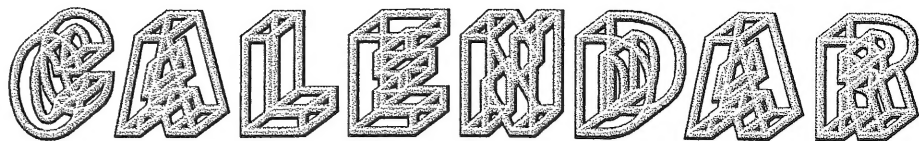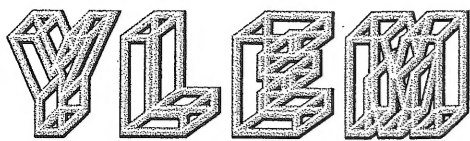
## Events

**September 1, 7:30 pm**
**Ylem Forum: Interactive Art.** See below.

**September 16**
**Iakta Workshop (Osaka, Japan)**
This workshop held at Senri Life-Science Center Osaka, Japan, is sponsored by IAKTA, Inc., U.S.A., and Laboratories of Image Information Science and Technology, Japan. Papers on applications of symbolic and connectionist AI to topics in composition, design, performance, and teaching in the computer arts (music, film, video, poetry, dance, sculpture, drawing, performance art, etc.). The workshop will comprise papers, panels, demonstrations, and a computer music concert. Workshop fee: equivalent of US $20. **Haruhiro Katayose, L.I.S.T., Laboratory fo Image Information Science and Technology, Senri Life-Science Center 11F, 1-4-2 Shinsenri-higashimachi Toyonaka-shi, Osaka 565 Japan; Fax: 81-6-8732040; katayose@inolab.sys.es.osaka-u.ac.jp**

**November 3–7**
**FISEA 93 (Minneapolis)**
Theme of Fourth International Symposium on Electronic Art (FISEA) is "The Art Factor." Cyberspace yields to sacred space when Brenda Laurel talks on "The Soul and the Machine: Artists and Technologists in Collaboration." Collaboration will emerge as a transforming frontier at the conference. "Art and Tech—Paradox or Challenge," the keynote address by Jan Hoet of the Documenta IX exhibition, puts forth a fresh view of new media arts. Sanctuaries for machine-soul encounters include the Walker Art Center (electronic theatre), the U of M's Tedd Mann Concert Hall (live performance), and the MCAD Gallery (art show). Applications include artificial life, virtual reality, automata, networking, body and sound arts. **FISEA 93, Minneapolis College of Art and Design, 2501 Stevens Ave. S., Minneapolis, MN 55404; 612-874-3754; Fax -3732; fisea93@mcad.edu**

## Exhibits

**Through January 4**
**Payne and Savard (Portland, OR)**
A selection of computer artwork by Larry Payne from the fine art collection of Gary and Daria Barclay. New York City's Sister Judith Savard will also be exhibiting her computer fine art. By appointment only. **University of Oregon Continuation Center, 720 SW 2nd Ave, Portland, OR; 503-725-3055**

**September 1 – October 2**
**New Computer Art Museum (Portland, OR)**
Abaci will open the Computer Art Museum with an exhibition of a selection of computer fine art from its permanent collection. Artists from several countries include Ylem members DARIA and Eleanor Kent, and features the work of Donna Cox from the National Center on Supercomputing Applications. Open first Thursday, 11 am-9 pm and by appointment. **312 NW 10th St., Portland, OR 97209; 503-228-8642**

**Deadline September 15**
## Ylem Slide and Video Registry
### Ylem members!
Since 1985, we have used your slides, videos and other documentation for: networking with curators, slide shows for conferences and art groups, a video production for cable TV, and art on the 1992-3 Ylem *Directory* color cover. This is an ongoing project, so continue to send us work. Please note that this is a separate project from the pictures that were due 9/1 for the Ylem *Directory*, with its own specifications and address.

### Slides
Submit five slides maximum. Ones of interactive art particularly sought. Pick your best, with strong color and good contrast.

### Video
One 1/2" VHS video which has a usable section 3-10 minutes long. Indicate whether a 3/4" or SVHS version is available for broadcast. Please label all slides and tapes.
A short artist's statement and an explanation of the work are very helpful.
*Note:* Do not send originals, as nothing will be returned. Whenever these are shown, full credit will be given to the artist.
Send to: **Ylem, 6979 Exeter Dr., Oakland, CA 94611.** Info: Beverly, 510-482-2483 or beverly@idiom.berkeley.ca.us

## Ylem Forum: Interactive Art Lives!

**Wednesday, September 1, 7:30 pm**
**McBean Theatre, The Exploratorium, 3601 Lyon St., San Francisco**
**Contact: Nancy Frank, 415-626-5742**

"How do we involve people in the arts?" is the perpetual lament of arts professionals, who suspect that 90% of the public could care less. This forum celebrates artists who engage the viewer in their personal vision by many means, including HyperCard and interactive CD technology. Sometimes such projects are deadly serious, but because of their exploratory nature, the person who gets involved finds a fascinating element of fun.

**Abbey Don,** who teaches video and performance at San Francisco Art Institute (SFAI), will give a premiere showing of her new work.

**Mark "Spoonman" Petrakis** of San Francisco's Climate Theatre: *The Changing Nature of Collaboration Community.* He sees new digital opportunities for artists.

**Sharon Grace,** an internationally known artist who was previously an MIT fellow.

*Plus!* Interactive art exhibits in the lobby.

The program is free, although donations are welcome. Wheelchair accessible.

## News of Members    continued from page 2

**Anton Lechleiter** spoke on color at a seminar given by the Institute for Image Management…In June, the Art and Mathematics conference organized at the State University of New York, Albany by **Nat Friedman,** featured Ylem artists **Anna Campbell Bliss, Helaman Ferguson, Rhonda Roland Shearer, Stewart Dickson** and **Bob Brill.**
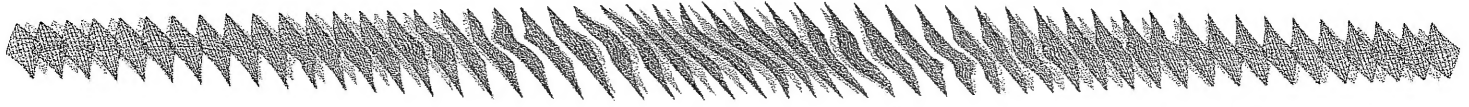
*September 4 – December 19*
**Woman's Work (Doylestown, PA)**
Large bronze sculptures by Ylem member Rhonda Roland Shearer. **James A. Michener Museum, Doylestown, PA**

*Through September 19*
**Images du Futur '93 (Montréal)**
The largest exhibition on art, new technologies and communications in the world: holography, computer animations, virtual reality, interactive sculptures, multimedia installations, etc. Interactive exhibition for the general public. **La Cite des Arts et des Nouvelles Technologies de Montréal, 15. rue de la Commune ouest. bur. 101. Montréal, Quebec, Canada H2Y 2C6; Mario Tremblay, 514-849-1612; Fax 514-982-0064**

*Through September 24*
**Computer Art by Les Barta (Amarillo, TX)**
Barta, an Ylem member, is showing works that are based on reconstructed elements he finds in a single photograph. He works from slides, scanning them into his computer and rearranging the images in them to create abstract puzzles. **Southern Light Gallery, Amarillo College, Amarillo, TX; 806-654-6400**

*Through September 24*
**Optical and Kinetic Art (Modesto, CA)**
Group show includes Ylem member Bob Hall. **Modesto Junior College Art Galley, 435 College Ave., Modesto, CA 95350; 209-575-6334**

*Through October 9*
**Sculpture by Bruce Beasley**
Bronzes planned on the computer by a contemporary master. Gallery talk by the artist, Sunday, Sept. 12th, 1-3 pm. **Shidoni Foundary, Galleries and Sculpture Garden, 5 miles north of Santa Fé on Bishop's Lodge Rd., Tesuque, NM 87574; 505-988-8001**

## Opportunities

*Deadline September 1*
**MOCA Intern**
The Los Angeles Museum of Contemporary Art is offering a 12-month curatorial internship, $18,000 stipend, $12,000 travel allowance. Open to recent recipients/candidates of MFA or MA with special training/interest in contemporary art or related field. Send letter describing interest in museum work, training, goals; resume; summary of undergrad, and grad. coursework and grades; 3 letters of recommendation. **Director of Administration, MOCA, 250 S. Grand Ave., Los Angeles, CA 90012**

*Deadline September 10*
**Time and Light**
Neon clockworks ready to display, including transformer/hanger/base and 15-foot 110 volt cord. No fee. Juried from photos. Show 10/30–12/11. 40% commission. **Let There Be Neon City, 38 White St., New York, NY 10013; 212-226-4883**

*Deadline September 10*
**Tokyo Video Festival**
JVC sponsors this constest open to amateurs and professionals who may sumit entries of any length up to 20 minutes in either or both categories: Open or "Video Letter Exchange." Video Letter Exchange is for work that explores the possibilities of two-way communication. Two grand prizes of $35,000 cash plus an expense-paid trip to the festival in Tokyo will be awarded in addition to smaller cash prizes. Formats: VHS or Beta; 3/4" (NTSC, PAL, SECAM). Festival date: November. **JVC Company of America, 41 Slater Drive, Elmwood Park, NJ 07407; 201-794-3900**

*Deadline late September*
**An Act of Resistance: Making Community**
A call to all mail & fax artists. There will be an international Mail Art and Fax Art component to an event this Fall sponsored by Resist, a foundation celebrating 25 years of funding grassroots social change. the show is *open to everyone.* Mail art: no returns; documentation to all. Send mail art to: **PO Box 1136, Kendall Square, Cambridge, MA 02142.** Fax art: during the show only, number TBA. Send a SASE or two international postal reply coupons for mail and fax details to: **Arts Resist, One Summer St, Somerville, MA 02143; jeremias@mit.edu**

*Deadline September 15*
**DCTV Video Festival**
The main criterion of the Downtown Community TV Center Video Festivals is that tapes show a particular impetus from a thoughtful cultural, social and political awareness. Tapes will be judged on content formulation, educational value, clarity and creativity. Formats: 1/2", 3/4", 8mm and Fisher Price Pixel. No fee. Festival date: November. **DCTV, 87 Lafayette Street, New York, NY 10013; 212-941-1298**

*Deadline September 15*
**Final Form: Documentation, Proposal, Theoretical Work**
A show of artwork that includes theoretical projects, proposal drawings, models, documentation. No fee. Gallery pays return shipping. Insurance. Possible catalog. Show 5/9–6/4, 1994. Send SASE and up to 3 slides/other materials that fit in 11" X 14" envelope.

Final Form, Trisolini Gallery, Ohio University, 48 E. Union St., Athens, OH 45701; 614-593-1304; Fax -1305

*Deadline September 15*
**SA'FEST (SAfety FESTival)**
International cARToon ART competition sponsored by Cartoonists Against Crime. Theme: Crime prevention. Promotes the prevention of crime through the art of cartooning. Dimensions: 10" X 15" b/w or color. Number of entries: 5 maximum. Name, address on back of each entry. Exhibit: October at Chicago City Hall for National Crime Prevention Month. Send to: **Adrienne Sioux Koopersmith, Cartoonists Against Crime, 1437 W. Rosemont #1W, Chicago, IL 60660; 312-743-5341**

*Deadline September 15*
**Ylem Slide and Video Registry**
Details on page 3.

*Deadline September 30*
**Cindy Competition**
AVC awards gold, silver and bronze "Cindys." By permission of the entrant, works will also be included in travelling exhibit, the AVC Cindy Library, and regional seminars, conferences. Numerous categories including: Technical/Artistic Crafts, Educational, Environment & Ecology, Essay/Short Personal Statement, Student Productions, Music & Fashion Video, Interactive Video/Multimedia. Formats: VHS, interactive, multi-image, 16mm, 35mm. Fees: $70-$90, interactive/multimedia $115-$140. Festival takes place in January. **Association of Visual Communicators, 8130 La Mesa Blvd. #406, La Mesa, CA 91941-6437; Sabrina Williams 619-461-1600**

*Deadline September 30*
**East Bay Video Festival**
Committed to presenting the "talent, diversity and cultural richness of the East Bay." Entries from disabled, minority, women, students and other underserved populations encouraged. Any format; final should be S-VHS, VHS. Fees: $30 ($20 for BAVC members). Festival date: November. **East Bay Media Center, 2054 University Ave. #203, Berkeley, CA 94704**

*Deadline October 1*
**ISEA '94 Call for Participation**
5th International Symposium on Electronic Art to be held in Helsinki, November 1994, has its first deadline coming up: its Silicon Graphics Grant Project for young European artists. Chosen artists will be provided with SGI equipment for their project. Contact: **Ms. Kristina Andersson, University of Art and Design Helsinki, UIAH Centre for Advanced Studies, Hämeentie 135 C, 00560 Helsinki, Finland; tel. + 358-0-7563344; Fax -3537**

## Deadline October 15
### New York Digital Salon

First annual computer art and design show, sponsored by NYC ACM/SIGGRAPH. Entry: up to four slides with entry fee of $25, $5 for each additional slide. Show December 6–17. Info: Timothy Binkley, School of Visual Arts, 209 E 23rd St, New York, NY 10010; 212-645-0852; Fax: 212-725-3587

### Fractals in the Future

Dr. Clifford Pickover, Ylem member, author and editor of several journals and books on computer art and fractals, is looking for contributors for his next book, *Fractals in the Future*. **Dr. Cliff Pickover, IBM Watson Research Center, Yorktown Heights, NY 10598; cliff@watson.ibm.com**

### International Painting Interactive

The First International Painting Interactive (IPI) was launched at the SIGGRAPH show in 1992. Over 150 artists from 14 cities around the world participated in the week long interactive event. Fresh IPI's are being planned for fall of 1993 and spring of 1994. The art work from different locations is created via a computer network using PING! (Project International Network Gateway) interactive software with interactive cursors (global brushes) and appears in two or more locations simultaneously. The artwork is then mixed with video artists' work and projected on a video wall for all to enjoy. An opportunity to show your work, meet others around the world, and demonstrate the latest in creative communication technology! Send a non-returnable 8 X 10" example of your work and qualifications brief to the address below or phone for info: **Artist Coordinator, PO Box 10176, Beverly Hills, CA 90213; Stephanie Slade, 310-278-3710**

### Smithsonian Experimental Gallery

The Smithsonian Institution is calling for proposals to develop models which might be used in creating more effective, more meaningful exhibitions in art museums. The general subject of the exhibition should focus on the visual arts. It should deal with one or more of the following areas: issues of connoisseureship; issues of aesthetics; social, collecting or other histories of art; looking at or seeing art; the role of the artist; the materials of art and art making; and interpretation of art in museums. Mail proposals to: **The Experimental Gallery, Smithsonian Institution, AI1240-MRC 0441, Washington, DC 20560; Kimberly Camp, Experimental Gallery Director: 202-786-2850; Fax: 202-633-9006; asmem117@sivm.si.edu**

## Needs/Offerings
### Animations Needed!

I urgently need moving images from you!! Send me your animations, please. For direct contact you can send mail to: harryhal@cs.tu-berlin.de. For sending your animation sequences to liven up my dump: ftp **ftp.artcom.de / login ftp / folder ArtProject/ Harry**

### BAVC Workshops

September Bay Area Video Coalition workshops include: Quicktime for Producers, Hands-on Toaster, Basic Video Production, and Music & Sound Design. Info: **Bay Area Video Coalition, 1111 17th St., San Francisco, CA 94107; 415-861-3282; Fax: 415-861-4316**

### CommX #1 is ready

The first issue of CommX (a multimedia comic strip) is ready. Details: **Nimrod Shabtai Kerrett (Abu Zeresh), work tel.: [+972-3] 6963277; home tel.: [+972-3] 810253; zeitgeist@attmail.com**

### Help High School Art Students

San Francisco School District, spurred by Ylem member Ruth Asawa and her colleagues, last year opened the High School of the Arts near the campus of San Francisco State University. They even have a computer lab. However, it has scant funds for supplies and enrichment activities. To donate materials, time and/or expertise, contact: **Charles Roberts, High School of the Arts, 700 Font, San Francisco, CA 94132; 415-469-4027**

### Image databases on the Internet

Those interested in the possibility of accessing image databases on the Internet ought to have a peek at the GIF Client Test Directory on the Gopher of the Faculty of Fine Arts at the University of Victoria, Canada. **Glenn Gunhouse, Department of Art and Design, University of Alberta, Edmonton, Canada**

### Leonardo Electonic News (LEN)

MIT Press is now publishing *Leonardo Electronic News. LEN* will continue to provide such features as Words on Works, profiles of current work at art/science/technology facilities around the world, and bibliographies/abstracts on a variety of current topics of interest. It will expand to include longer feature articles new columns in a variety of topic areas. $25 a year. Current members of Leonardo/ISAST, subscribers to the journal *Leonardo,* and our donors will receive their issues gratis. To subscribe, send your name, address and credit card information to: **journals-orders@mit.edu**

### More on New England Art Institute Fraud

Artists "invited" to show in State of the Art '93, staged by the fly-by-night New England Art Institute, are advised to register their complaints to these offices: **George K. Weber, Asst. Attorney General, Commonwealth of MA, 1 Ashburton Pl., Boston, MA; Consumer Protection Hotline, 617-727- 8400; and Complaint Resolution, Eastern MA Better Business Bureau, 20 Park Plaza #820, Boston MA; 617-426-900, Fax -7813**

### Silicon Valley ACM/SIGGRAPH

Regular meetings about computer graphics, often of a technical nature. Meets at Xerox PARC in Palo Alto. Info: **Domenic Allen, Silicon Gallery ACM/SIGGRAPH, 5478 Sharon Lane, San Jose, CA 95124; 408-358-7828**

### Sterling and Gibson Essays

This is forwarded from LM_Net via Net-Happenings...it is very, very interesting. Bruce Sterling is an Ylem member. Literary freeware — not for commercial use: *Speeches by William Gibson and Bruce Sterling at the National Academy of Sciences Convocation on Technology and Education* in Washington DC, May 10, 1993. Obtain from: **Bruce Sterling, bruces@well.sf.ca.us**

### The VASARI Project

Five years ago, the National Gallery of Birkbeck College, University of London, began collaborating to develop equipment capable of making high quality electronic images of paintings. The result: VASARI, Visual Art Systems for Archiving and Retrieval of Images. Since no digital camera can produce 10 pixels per millimeter in one exposure necessary for capturing the craquelure and brush strokes, a mosaic method from several exposures is employed. **VASARI Project, National Gallery, Trafalgar Square, London WC2N 5DN, UK; tel. 071 839 3321**

### The "How-to" for Pictures

Extensive details on the transfering of pictures by modem from: **Jim Howard, deej@cadence.com via DESIGN-L**

### Wanted: Voice of a Young Boy

Interactive artist Bob Hall in Los Gatos, CA is making an automated puppet shadow theatre, and needs a collaborator who lives near him to be the voice of a young boy in a recording for it. Possibilities include a 5-12 year old boy with "presence" (some acting experience desirable but not essential) or an adult with acting experience who could sound like one. Contact: **Bob Hall, 16162 Lilac Lane, Los Gatos, CA 95032; 408-358-2283**

## Ylem is a non-profit, networking organization.

Laser Reflection Maze by Levy Design, shown at Liberty Science Center, New Jersey
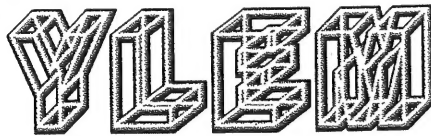
# Artists Using Science and Technology
## PO Box 749, Orinda, CA 94563

Use this address for membership info./renewals. See below for newsletter editor/submissions address.

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**September Newsletter**

## Contributions are most welcome

The Ylem Newsletter welcomes Ylem members' art and articles, notices of events, exhibitions, etc. Art submitted must reproduce well with b&w copy machine. If you have done art on a Macintosh, you may send us a disk. Please include title, date created, medium and phone number. Articles should be 400-800 words long, preferably on a Mac disk. Send to **Ylem Editor** (see below).

## Ylem's two addresses:

Submissions and notices for Newsletter, write:

**Ylem Editor, 967 Moreno Ave.**
**Palo Alto, CA 94303**
Trudy, **415-856-9593**
**trudymyrrh@aol.com**

Membership info., any other Ylem business, write:

**Ylem** (main office)
**PO Box 749**
**Orinda, CA 94563**
**beverly@idiom.berkeley.ca.us**

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